

IN THE CLAIMS:

Please amend Claims 1, 4, and 11, and add new Claim 16, as follows.

1. (Currently Amended) An optical waveguide apparatus comprising:
 - a sheet-shaped optical waveguide capable of propagating light in two-dimensional directions;
 - a light emitting unit for emitting a light beam to said waveguide,
 - light receiving units for receiving light propagating in said waveguide; ~~and~~
 - a light diffusing structure for diffusing the light beam from said light emitting unit; and
 - a closed region having said light receiving units,
 - wherein said light diffusing structure is located closer to the light receiving units than said emitting unit in said closed region,
 - wherein the light beam emitted by said light emitting unit propagates to said light diffusing structure, the light beam is diffused in said closed region by said light diffusing structure to propagate in all directions from the light diffusing structure within the closed region, and said light receiving units are located at positions that surround the light diffusion structure within the closed region to receive the light diffused by said light diffusing structure, ~~and~~
 - ~~wherein said light emitting unit, at least one of said light receiving units and said light diffusing structure are not located on a straight line extending along said sheet-shaped optical waveguide.~~

2. (Previously Presented) The optical waveguide apparatus according to claim 1, wherein said light diffusing structure is constructed such that a propagation condition of light propagating in said waveguide can be changed at a place on a light propagation path between said light emitting unit and at least one of said light receiving units in a relaying manner.

3. (Canceled)

4. (Currently Amended) The optical waveguide apparatus according to claim 1, wherein said light diffusing structure has a thickness less than a thickness of a core layer of said waveguide.

5. (Canceled)

6. (Canceled)

7. (Previously Presented) The optical waveguide apparatus according to claim 1, wherein said light diffusing structure includes a structure capable of changing a propagation condition of light propagating in said waveguide without processing light in a regenerative manner by amplification and shaping.

8. (Canceled)

9. (Previously Presented) The optical waveguide apparatus according to claim 1, wherein said waveguide has a structure in which a sheet-shaped core layer is sandwiched by a first cladding layer and a second cladding layer.

10. (Canceled)

11. (Currently Amended) The optical waveguide apparatus according to claim [[10]] 1, further comprising an optical-path converting structure for converting at least one light beam emitted from said light emitting unit into at least one light beam propagating in at least one predetermined direction, said optical-path converting structure being arranged in a portion of said waveguide below said light emitting unit.

12. (Original) The optical waveguide apparatus according to claim 11, wherein said optical-path converting structure has a spherical, hemispherical, conical, wedge-shaped, or polygonal pyramid-shaped structure.

13-15. (Canceled)

16. (New) The optical waveguide apparatus according to Claim 1, wherein said light emitting unit, at least one of said light receiving units and said light diffusing structure are not located on a straight line extending along said sheet-shaped optical waveguide.